DEPARTMENT OF THE ARMY U.S. Army Corps of Engineers Washington, D.C. 20314-1000

EP 1110-345-102

CEMP-ET

Pamphlet No. 1110-345-102

31 August 1995

Engineering and Design EXPLOSIVES STORAGE MAGAZINES

- 1. <u>Purpose</u>. Appendix A provides a ready reference of explosives storage magazine information such as shape, size, explosive limits, and operational features. It is intended to provide planners and designers sufficient information to select the most suitable standard magazine design to satisfy the user's requirements.
- 2. <u>Applicability</u>. This pamphlet is applicable to all HQUSACE elements, major subordinate commands, districts, and field operating activities (FOA) having military design and construction responsibilities.

3. <u>References</u>.

- a. DoD 6055.9-STD
- b. AR 385-60
- c. AR 385-64
- d. AR 415-17
- e. TM 5-1300
- Discussion. Military installations use magazines, sometimes referred to as igloos, for the storage of ammunition and explosives. Selecting the correct storage capacity, siting, and type of magazine has been a problem to military planners, and especially to those responsible for assuring safety compliance. Investigational work with earth-covered magazines has been concerned with intra relationships within magazine complexes for siting purposes. Numerous full-scale tests performed over a period of several years have established magazine separation criteria that will prevent magazine-to-magazine explosion propagation. These tests formed the basis for the explosive safety standards in AR 385-64 which implements DOD 6055.9-STD requirements. The primary objective of standard magazines is to provide designers and installation planners pre-approved magazines meeting the Department of Defense Explosives Safety Board (DDESB) safety criteria. This pamphlet is structured to

EP 1110-345-102 31 Aug 95

provide complete guidance to Army. It does not address those magazines listed in references a and c that were developed by the Naval Facilities Engineering Command.

FOR THE COMMANDER:

1 Appendix APP A - Explosives Storage Magazines ROBERT H. GRIFFIN Colonel, Corps of Engineers Chief of Staff